

Assessment Annotations for the Curriculum Frameworks

Health Education and Physical Education (Healthy, Active Living) Grades 5 and 9



HEALTH AND PHYSICAL EDUCATION ASSESSMENT ANNOTATIONS

For the Health and Physical Education Curriculum Frameworks

This document provides supplemental assessment information to Missouri's *Framework for Curriculum Development in Health Education and Physical Education (Healthy, Active Living) K-12*. The assessment annotations found in the third column of this document are intended to provide information for administrators, curriculum directors, and teachers concerning what is "fair game" for the new statewide assessment in 5th and 9th grades in health and physical education.

Teachers attending nine regional meetings in August were involved in determining what content and processes should be assessed on the state assessment and what should be assessed locally. Since the curriculum frameworks were developed for K-4,5-8 and 9-12 grade ranges and the state assessment will be given at grades 5 and 9, teachers worked as an elementary group and as a secondary group. The elementary group reviewed both the K-4 and 5-8 sections of the curriculum frameworks to determine appropriate content for the 5th grade state assessment. The secondary group reviewed the 5-8 and 9-12 sections of the curriculum frameworks to determine appropriate content for the 9th grade state assessment.

Please note that content from the 5-8 section is often listed as being assessed at both the 5th and 9th grade level with the understanding that the questions will be more challenging and will require students to use higher order thinking skills on the 9th grade assessment.

Please note that **not all** of the content identified as state assessment will be included on the test in any given year. The number of test items developed to assess health and physical education content and processes may vary from year to year.

I. FUNCTIONS AND INTERRELATIONSHIPS OF SYSTEMS---ASSESSMENT NOTES

A. Body Systems

B. Social Systems

K-12 Content Overview

Human beings depend upon systems in order to function, A system can be defined as a group of related parts that form a whole. Human systems include not only the complex, integrated processes of the mind and body but also systems of social interactions. Together these systems either strengthen or diminish one's physical, social, mental and emotional well-being.

Body systems are interrelated but they also have distinct functions of their own. Therefore, behaviors and habits which promote appropriate development of **every** system are crucial to the health of the entire organism (body). The study of body systems includes the structure, function and interrelationships of systems and factors that affect their functioning.

Social systems includes relationships among peers, friendships, families and the community. Within these social systems are networking agencies and controls that strengthen, promote, or protect individual, family and community health. In order to function well within social systems, individuals need to be able to understand their own feelings and those of others. Social and communication skills also can enhance one's ability to function well within social systems. These include the ability to express one's self in a variety of situations, interpreting communication from others and representing thoughts and ideas while taking into consideration other viewpoints. A "health literate" individual also needs to realize that a variety of cultures co-exist within our country and that ethnic and multi-cultural traditions and beliefs can provide unique and challenging perspectives to one's study of social systems.

The content in this strand has not been included in the Science Framework, but districts might choose to teach it as part of a science unit or course.

I. FUNCTIONS AND INTERRELATIONSHIPS OF SYSTEMS

A. Body Systems

What All Students Should Know	What All Students Should Be Able to Do	Assessment Notes
<p><i>By the end of grade 4, all students should know that</i></p> <ol style="list-style-type: none"> 1. The ability to live, work and play depends upon the healthy functioning of body systems. (HP 1) 2. Daily activities can affect body system functioning. (HP 2) 3. The skeletal/muscular, cardiovascular, respiratory, urinary, digestive systems and nervous system have basic structures and functions that enable humans to live and perform a variety of tasks. (HP 1) 4. The skeletal system provides a framework for the body. It protects internal organs, aids in movement and plays a role in blood cell formation. (HP 1) 5. The muscular system provides humans with the ability to move and perform a variety of physical tasks. Specialized muscles help humans breathe, digest food, eliminate wastes and circulate blood. (HP 1) 	<p><i>By the end of grade 4, all students should be able to</i></p> <ol style="list-style-type: none"> a. organize data, information and ideas about the structure and function of the body systems into useful forms (including charts, graphs, outlines) for analysis or presentation (1.8) a. evaluate how certain behaviors (both positive and negative) influence body system functions in order to determine a cause and effect relationship (1.6) a. identify and describe the basic structure and functions of the circulatory, respiratory, urinary, skeletal/muscular, digestive, and nervous system (1.10; 2.1) a. compose written communications for parents and students regarding the body systems, their structure and functions for parents and other students (2.1) a. design and conduct field and laboratory inquiries by using the five senses to gather information; make observations; organize data; predict, summarize and draw conclusions about one's personal and social environment (1.3) 	<ol style="list-style-type: none"> 1. Grade 5 Local Assessment <ol style="list-style-type: none"> a. Grade 5 State Assessment 2. Grade 5 Local Assessment <ol style="list-style-type: none"> a. Grade 5 State Assessment 3. Grade 5 State Assessment <ol style="list-style-type: none"> a. Grade 5 State Assessment 4. Grade 5 State Assessment <ol style="list-style-type: none"> a. Grade 5 Local Assessment 5. Grade 5 State Assessment <ol style="list-style-type: none"> a. Grade 5 Local Assessment

What All Students Should Know	What All Students Should Be Able to Do	Assessment Notes
<p>By the end of grade 4, all students should know that</p> <ol style="list-style-type: none"> The cardiovascular system includes the heart and blood vessels. The heart pumps blood to all body cells. The blood delivers oxygen and nutrients and removes carbon dioxide and other waste materials. (HP 1) The respiratory system, which includes the air passage ways and lungs, takes in oxygen from the air, delivers it to the blood through the capillaries, and removes carbon dioxide from the blood. (HP 1) The urinary system is part of the excretory system. It includes the kidneys, ureters, bladder and urethra. The urinary system filters waste from the blood and removes excess water. (HP 1) The digestive system processes food into a form the body can use for growth and internal functioning. It also removes solid waste from the body. (HP 1) The human brain is part of the nervous system. The brain is important for all thought processes and for feelings, coordination and balance. The brain also monitors internal functioning including breathing and heart rate. (HP 1) 	<p>By the end of grade 4, all students should be able to</p> <ol style="list-style-type: none"> design and conduct introductory laboratory investigations regarding body system functions, e.g., heart rate and physical activity, strength of bones, volume of exhaled air, the effect of digestion on food, etc. (1.3) 	<ol style="list-style-type: none"> Grade 5 State Assessment Grade 5 State Assessment Grade 5 State Assessment Grade 5 State Assessment Grade 5 State Assessment a. Grade 5 Local Assessment

I. FUNCTIONS AND INTERRELATIONSHIPS OF SYSTEMS

B. Social Systems

What All Students Should Know	What All Students Should Be Able to Do	Assessment Notes
<i>By the end of grade 4, all students should know that</i>	<i>By the end of grade 4, all students should be able to</i>	
1. Social systems include functions and characteristics of the family, friends and peer relationships. (SS 6)	a. evaluate characteristics of a healthy community and environment (1.6)	1. Grade 5 Local Assessment a. Grade 5 Local Assessment
2. Family, friends and peers can have a positive or negative influence on one's well-being. (HP 2)	a. describe characteristics needed to be a responsible friend and family member (4.3)	2. Grade 5 State Assessment a. Grade 5 State Assessment
3. Individuals have unique needs, strengths, abilities and responsibilities within culturally diverse social systems. (HP 2)	a. identify and discuss the effects of human actions toward people with different abilities and toward people with different ethnic and cultural backgrounds (2.3; 4.3) b. analyze the duties and responsibilities needed to be a contributing member of a social community (4.3)	3. Grade 5 Local Assessment a. Grade 5 Local Assessment b. Grade 5 Local Assessment
4. There are agencies such as the Department of Health, the fire department, police department, etc., that work to improve or maintain the health of the community. (SS 6)	a. identify appropriate health professionals who can provide assistance for specific health issues or problems (3.2)	4. Grade 5 State Assessment a. Grade 5 State Assessment

K-4

What All Students Should Know	What All Students Should Be Able to Do	Assessment Notes
<p><i>By the end of grade 4, all students should know that</i></p> <p>5. A component of effective communication is the ability to express needs, wants and feelings in health-enhancing ways. (HP 2)</p> <p>6. Effective communication includes verbal and non-verbal skills such as organizing thoughts, attentive listening, speaking clearly, interpreting non-verbal cues and avoiding put-downs. (CA 6)</p>	<p><i>By the end of grade 4, all students should be able to</i></p> <p>a. identify confusing, difficult or threatening situations that may require the assistance of a trusted adult (3.1)</p> <p>b. identify appropriate ways to express needs, wants and feelings in a variety of situations (2.1)</p> <p>c. demonstrate ways to communicate care, consideration and respect of self and others (4.7)</p> <p>a. use effective communication skills in the classroom and in simulated social situations (2.3)</p> <p>b. discuss and respond thoughtfully to others by exhibiting attentive listening skills (2.3)</p>	<p>5. Grade 5 State Assessment</p> <p>a. Grade 5 State Assessment</p> <p>b. Grade 5 State Assessment</p> <p>c. Grade 5 Local Assessment</p> <p>6. Grade 5 Local Assessment</p> <p>a. Grade 5 Local Assessment</p> <p>b. Grade 5 Local Assessment</p>

I. FUNCTIONS AND INTERRELATIONSHIPS OF SYSTEMS

A. Body Systems

What All Students Should Know	What All Students Should Be Able to Do	Assessment Notes
<p><i>By the end of grade 8, all students should know that</i></p> <ol style="list-style-type: none"> I. Human body systems do not exist in isolation. Their optimal functioning depends upon their interdependence. When system failure occurs in one, it ultimately causes problems for other body systems. (HP 1) 2. The endocrine system is a system of ductless glands that secrete hormones into the blood. These hormones regulate many vital body functions, including growth (pituitary), reproduction (ovaries, testes), fight or flight responses (adrenal) and energy, metabolism (thyroid). (HP 1) 3. The nervous system includes the brain, nerves and spinal cord. It is the communication center for the body, sending and receiving messages, regulating body functions and serving as the control center for the five senses and for emotions, speech, coordination, balance, and learning. Learning is influenced by the brain's short- term and long- term memory as well as learning styles and the environment. (HP 1) 	<p><i>By the end of grade 8, all students should be able to</i></p> <ol style="list-style-type: none"> a. apply knowledge of system interrelationships to predict health problems that could occur as a result of dysfunction (1.6; 1.10) a. describe the physical changes that occur during puberty and the interrelationship among systems that cause these changes (2.3) a. analyze how learning is influenced by memory, environment, learning styles and strategies (1.2) 	<ol style="list-style-type: none"> 1. Grade 5 State Assessment Grade 9 State Assessment a. Grade 5 State Assessment Grade 9 State Assessment 2. Grade 9 State Assessment a. Grade 9 State Assessment 3. Grade 9 State Assessment a. Grade 9 State Assessment

What All Students Should Know	What All Students Should Be Able to Do	Assessment Notes
<p><i>By the end of grade 8, all students should know that</i></p> <p>4. The immune system is the body's defense team. It provides the body several lines of defense in order to fight infections and to build resistance to disease. (HP 1)</p> <p>5. The reproductive system includes male and female organs that release specific hormones responsible for the development of secondary sex characteristics and for the production and release of reproductive cells, allowing the opportunity for fertilization. (HP 1)</p> <p>6. Humans follow a predictable pattern and sequence of reproduction, growth and development. (HP 1)</p> <p>7. Fetal development and birth follow a sequential process. (HP 1)</p>	<p><i>By the end of grade 8, all students should be able to</i></p> <p>a. conduct research to answer questions and evaluate information about the immune system (1.2)</p> <p>a. research the physical, emotional, social and intellectual changes occurring during puberty (1.2)</p> <p>a. use a variety of resources and technologies in order to describe the structure, function and interactions of the endocrine, reproductive, nervous and immune systems (1.4)</p> <p>a. sequence the process and events of the human life cycle including fertilization, fetal development and birth (1.8)</p>	<p>4. Grade 5 State Assessment Grade 9 State Assessment</p> <p>a. Grade 9 Local Assessment</p> <p>5. Grade 9 State Assessment</p> <p>a. Grade 9 State Assessment (Change "research" to "identify" for state assessment)</p> <p>6. Grade 9 State Assessment</p> <p>a. Grade 9 State Assessment</p> <p>7. Grade 9 State Assessment</p> <p>a. Grade 9 State Assessment</p>

I. FUNCTIONS AND INTERRELATIONSHIPS OF SYSTEMS

B. Social Systems

What All Students Should Know	What All Students Should Be Able to Do	Assessment Notes
<p><i>By the end of grade 8, all students should know that</i></p> <ol style="list-style-type: none"> Relationships with peers can include both negative peer pressure and positive peer support. (HP 2) Family, friends and culture can influence personal health practices. (HP 2) There are cooperative and social skills that facilitate working in group situations. (HP 2) All individuals have unique needs that should be considered in order to provide maximal opportunities to lead a healthy, productive life. (HP 2) 	<p><i>By the end of grade 8, all students should be able to</i></p> <ol style="list-style-type: none"> differentiate between negative peer pressure and positive peer support when making informed and responsible decisions (4.1) evaluate ideas and perspectives regarding the influence friendships, peers, and acquaintances have on choices and behaviors during adolescence (1.6) evaluate the importance of effective listening skills in building and maintaining friendships (2.6) discuss problems with a trusted adult when encountering confusing or difficult situations (3.2) 	<ol style="list-style-type: none"> Grade 5 State Assessment Grade 9 State Assessment <ol style="list-style-type: none"> Grade 5 State Assessment Grade 9 State Assessment Grade 9 State Assessment <ol style="list-style-type: none"> Grade 5 State Assessment Grade 9 State Assessment Grade 5 State Assessment Grade 9 State Assessment <ol style="list-style-type: none"> Grade 5 Local Assessment Grade 9 State Assessment Grade 5 State Assessment Grade 9 State Assessment <ol style="list-style-type: none"> Grade 5 Local Assessment Grade 9 Local Assessment

What All Students Should Know	What All Students Should Be Able to Do	Assessment Notes
<p><i>By the end of grade 8, all students should know that</i></p> <p>5. Defense mechanisms are learned behaviors that can be both constructive or destructive as a means for handling emotions. (HP 2)</p> <p>6. Individuals have responsibilities within culturally diverse social systems. (SS 6)</p> <p>7. Community networks and government agencies protect and promote individual and community health. (SS 6)</p> <p>8. Communication skills needed to foster healthy relationships with peers, adults and members of the community include demonstrating care, consideration and respect of self and others; managing feelings caused by disappointment, stress, separation or loss; and recognizing barriers to effective communication. (HP 2)</p>	<p><i>By the end of grade 8, all students should be able to</i></p> <p>a. solve problems related to the management of feelings experienced during stress, disappointment, separation or loss (3.5)</p> <p>b. analyze ways individuals can respond to the needs of people with varying abilities (4.3)</p> <p>a. analyze cultural influences on personal health practices and decisions (4.1)</p> <p>a. select appropriate resources in the community to determine their role in prevention and treatment of health related problems, (i.e., American Cancer Society, March of Dimes, American Heart Association, etc.) (1.7; 3.4; 3.7)</p> <p>b. examine the viewpoints and collaborative efforts of individuals, communities, and government regarding societal health issues in order to make decisions that are informed and responsible, e.g., recycling efforts, pollution controls, etc. (3.6; 4.6)</p> <p>a. exchange information and ideas while recognizing the perspective of others (4.1)</p>	<p>5. Grade 9 State Assessment</p> <p>a. Grade 9 State Assessment</p> <p>b. Grade 9 State Assessment</p> <p>6. Grade 5 State Assessment Grade 9 State Assessment</p> <p>a. Grade 5 Local Assessment Grade 9 Local Assessment</p> <p>7. Grade 9 State Assessment</p> <p>a. Grade 5 Local Assessment Grade 9 Local Assessment</p> <p>b. Grade 5 Local Assessment Grade 9 Local Assessment</p> <p>8. Grade 9 State Assessment</p> <p>a. Grade 9 Local Assessment</p>

I. FUNCTIONS AND INTERRELATIONSHIPS OF SYSTEMS

A. Body Systems

What All Students Should Know	What All Students Should Be Able to Do	Assessment Notes
<i>By the end of grade 12, all students should know that</i>	<i>By the end of grade 12, all students should be able to</i>	
1. Personal health behaviors can have both short and long term consequences on the functioning of human body systems. (HP 2)	a. determine the impact both history and current practices have on the development of a healthy body (1.10)	1. Grade 9 State Assessment a. Grade 9 State Assessment
2. The use of the scientific method and problem-solving helps individuals to examine system functions and disease formation. (HP 1, 3)	a. recognize actual problems related to healthy system functioning encountered in daily living situations, e.g., stress, inactivity, high fat diet, etc. Using appropriate technology and other resources, formulate logical and creative strategies to predict, prevent and solve health problems (3.1; 3.2)	2. Grade 9 State Assessment a. Grade 9 State Assessment-eliminate the 2 nd sentence for state assessment.
3. Media, culture, technology and medical research impact and influence current health knowledge, behavior and practices. (HP 6)	a. design and conduct laboratory inquiries to test hypotheses and to form conclusions about body functions (1.3)	3. Grade 9 Local Assessment Grade 9 Local Assessment
4. The study of genetics can help individuals to determine dominant and recessive traits and to understand the impact heredity has on system functions and disease formation. (HP 1)	a. conduct research to answer questions regarding dominant and recessive traits to determine inherited characteristics (1.2) b. evaluate information, ideas and arguments regarding current technological health advances and research to determine one's perspective regarding a health care issue, e.g., gene testing, organ transplants, etc. Evaluate the results considering such issues as ethics (1.6; 3.8)	4. Grade 9 Local Assessment a. Grade 9 Local Assessment b. Grade 9 Local Assessment

I. FUNCTIONS AND INTERRELATIONSHIPS OF SYSTEMS

B. Social Systems

What All Students Should Know	What All Students Should Be Able to Do	Assessment Notes
<p><i>By the end of grade 12, all students should know that</i></p> <ol style="list-style-type: none"> As individuals mature, the dynamics of relationships with family, group and the community become more complex and more important for well-being and stability in the world of work. (HP 2) The rights of both individuals and the communities need to be considered when making societal health decisions. (HP 2) Barriers exist that inhibit individuals from leading independent, healthy and productive lives. (HP 2) An understanding of the health care system includes how it functions, how to access it, how to use it to plan for future health security. (SS 6) Many careers exist in health-related professions. (SS 6) Defense mechanisms are learned behaviors that can be both constructive or destructive in handling emotions. (HP 2) 	<p><i>By the end of grade 12, all students should be able to</i></p> <ol style="list-style-type: none"> evaluate factors that impact personal and family health including heredity, lifestyles, economics and health care access (1.6; 3.1) evaluate the extent to which strategies such as shared decision-making, collaboration and consensus building enhance group dynamics (3.7) propose solutions to reduce the barriers that prevent individuals from leading healthy productive lives (3.6) select and identify appropriate strategies to solve problems related to health care systems, considering such issues as cost of experimental drugs, medical ethics, access issues. Verify whether or not a solution addresses the problem to which it was applied (3.6; 3.8) identify for educational and job opportunities in health and fitness related careers (4.8) distinguish between constructive and destructive ways to deal with problems and emotions (3.1; 3.5) 	<ol style="list-style-type: none"> Grade 9 State Assessment a. Grade 9 Local Assessment Grade 9 State Assessment a. Grade 9 Local Assessment Grade 9 State Assessment a. Grade 9 State Assessment Grade 9 State Assessment a. Grade 9 State Assessment Grade 9 State Assessment a. Grade 9 State Assessment Grade 9 State Assessment a. Grade 9 State Assessment